

WHAT IS CLAIMED IS

1. An electric motor comprising;
5 a stator core formed by an integrated set of a plurality of split core blocks;
 a core section having a metallic connection housing that connects the individual split core blocks in dovetailed form to create one connected core section; and
10 wherein the dovetailed connections at said connection housing are plastically deformed to remove the connection gap existing at each of the dovetailed connections.
2. An electric motor comprising;
15 a rotor;
 a stator;
 a stator core constituting said stator;
 a core section constituting said stator core;
 a plurality of split core blocks constituting said 20 core section;
 a metallic connection housing that connects said split core blocks in dovetailed form to create one connected core section; and
 wherein said split core blocks are each formed of 25 a laminated steel plate, said connection housing is

formed of a material softer than said laminated steel plate, and the dovetailed connections at said connection housing are plastically deformed to remove the connection gap existing at each of the dovetailed connections.

3. An electric motor as set forth in Claim 1,
wherein said connection housing is formed of a
material softer than said core section.

4. An motor comprising:

10 a stator;
a rotor so positioned as to be freely rotatable
around said stator;

a stator core that constitutes said stator;

a core section constituting said stator core;

15 a plurality of split core blocks constituting said
core section; and

a metallic connection housing connecting said split core blocks so as to form one integrated core section,

20 wherein the magnetic pole tooth section formed by
each of said split core blocks comprises a coil
winding drum portion, an outer-surface magnetic pole
portion provided at the outer-surface front end of
said coil winding drum and spread in a circumferential
25 direction, and a support portion provided at the

inner-surface front end of the coil winding drum;

wherein said magnetic pole tooth section whose outer-surface magnetic pole portion is positioned at the outer-surface side and whose coil winding drum is radially positioned is connected in dovetailed form to said connection housing positioned at the inner-surface side of said support portion;

wherein an engagement protrusion or engagement recess for dovetailed connection is provided on the inner surface of the support portion and an engagement protrusion or engagement recess for dovetailed connection is provided on the outer surface of the connection housing so as to fit into the engagement protrusion or engagement recess on the inner surface of the support portion; and

wherein the engagement protrusion or engagement recess for dovetailed connection, provided in the connection housing, is plastically deformed to remove the connection gap existing between the engagement protrusion and engagement recess that fit one another.

5. An electric motor comprising:

a stator;

a rotor positioned so as to be freely rotatable around said stator;

25 a stator core constituting said stator;

a core section constituting said stator core;
a plurality of split core blocks constituting said
core section; and

5 a metallic connection housing connecting said
split core blocks so as to form one integrated core
section;

10 wherein the magnetic pole tooth section formed by
each of said split core blocks comprises a coil
winding drum portion, an outer-surface magnetic pole
portion provided at the outer-surface front end of
said coil winding drum and spread in a circumferential
direction, and a support portion provided at the
inner-surface front end of the coil winding drum;

15 wherein said magnetic pole tooth section whose
outer-surface magnetic pole portion is positioned at
the outer-surface side and whose coil winding drum is
radially positioned is connected in dovetailed form to
said connection housing positioned at the inner-
surface side of said support portion;

20 wherein an engagement recess for dovetailed
connection is formed on the inner surface of the
support portion and an engagement protrusion for
dovetailed connection is formed on the outer surface
of the connection housing so as to protrude from the
25 outer surface of the connection housing to ensure a

fit into the engagement recess on the inner surface of the support portion; and

wherein the engagement protrusion for dovetailed connection, provided on the connection housing, is 5 plastically deformed to remove the connection gap existing between the engagement protrusion and engagement recess that fit one another.

6. An electric motor as set forth in Claim from 1, wherein said connection housing is formed by cold 10 forging, die-casting, or the like.

7. An electric motor as set forth in Claim 1, wherein the connection gap is of a level at which the volume of the metallic material extruded by said plastic deformation is permissible.

15 8. An electric motor as set forth in Claim 1, wherein said connection housing to which the dieing tool to be used for forming by means of said plastic deformation, such as a punch, is provided with preholing, prepunching, or other preliminary machining, 20 to ensure guidance for supporting the dieing tool.

9. An electric motor as set forth in Claim 8, wherein said plastic deformation fastens split core blocks to said connection housing and in the lateral laminating direction of said laminated steel plate.

25 10. An electric motor as set forth in Claim 4,

wherein said plastic deformation flares said support portion in its circumferential direction to remove the adjacent gaps between the supports of said adjacent magnetic pole teeth.